Steps to Calculate, Plot, and Interpret BMI for Children and Adolescents

Step 1: Obtain accurate height and weight measurements

Step 2: Calculate BMI, using BMI slide wheel, table, or formula:

Metric: BMI = (weight in kg) / (height in meters) (height in inches)

English: BMI = (weight in lbs x 703) / (height in inches) (height in inches)

Step 3: Select the BMI-for-age chart appropriate for child's gender

Step 4: Plot the BMI value at the intersect with child's age

Step 5: Identify the percentile line closest to point plotted

Step 6: Interpret the plotted measurements

Overweight At or above 95th percentile of BMI-for-age

At Risk for Overweight Between 85th and 95th percentiles

Normal weight Between 5th and 85th percentiles

Underweight Below 5th percentile of BMI-for-age

While rate of change in BMI as a specific risk indicator has not been well defined, an annual increase of 3 or more BMI units may reflect rapid increase in body fat that warrants further evaluation.

Step 7: Consider further assessment to confirm diagnosis of overweight, identify underlying causes of overweight, and guide management plan

BMI-for-age is a screening tool. Clinical judgment must be applied to determine the need for further assessment. Growth patterns outside normal range should always prompt rechecking of measurements. Children and adolescents determined to be overweight should undergo in-depth assessment for underlying causes and guide management plans.